

Patent Claims:

1. A nucleic acid coding for the human cell volume-regulated kinase h-sgk having the amino acid  
5 sequence shown in Fig. 2.
2. A nucleic acid having the nucleotide sequence shown in Fig. 1.
- 10 3. A nucleic acid which hybridizes with the nucleic acid as claimed in claim 1 or 2 under stringent conditions and which codes for a functionally active cell volume-regulated kinase whose  
transcription can be induced neither by fetal calf  
15 serum (FCS) nor by a glucocorticoid.
4. A nucleic acid which hybridizes with the nucleic acid as claimed in claim 1 or 2 under stringent conditions and which codes for a functionally  
20 active cell volume-regulated kinase which is not identical to rat sgk.
5. A nucleic acid fragment comprising approximately the region of nucleotide position 980 to 1480 of  
25 the nucleic acid as claimed in claim 1 or 2.
6. A nucleic acid fragment coding for an immunologically active fragment of the human cell volume-regulated kinase h-sgk.

7. A nucleic acid fragment as claimed in claim 6, coding for a fragment having at least one of the following amino acid sequences:

DPEFTEEPVPNSIGKSPDS (1)

5 EAFLGFSYAPPTDSFL (2)

8. Human cell volume-regulated kinase h-sgk or fragments thereof, obtainable by recombinant expression of the nucleic acid as claimed in one or more of claims 1 to 7.

9. Human cell volume-regulated kinase h-sgk having the amino acid sequence shown in Fig. 2.

10. An immunogenic peptide having at least one of the following amino acid sequences:

DPEFTEEPVPNSIGKSPDS (1)

EAFLGFSYAPPTDSFL (2)

11. A receptor which binds specifically to the human cell volume-regulated kinase h-sgk as claimed in claim 8 or 9.

12. A receptor as claimed in claim 11, which comprises monoclonal or polyclonal antibodies.

13. The use of the nucleic acid as claimed in one or more of claims 1 to 7 or of a fragment of this nucleic acid for detecting a nucleic acid coding for the human cell volume-regulated kinase h-sgk.

14. The use of the nucleic acid as claimed in one or more of claims 1 to 7 or of a fragment of this nucleic acid for detecting a nucleic acid coding for the human cell volume-regulated kinase h-sgk in a Northern blot or by hybridization.
15. The use of the human cell volume-regulated kinase h-sgk as claimed in either of claims 8 or 9 or of a peptide as claimed in claim 10 for detecting receptors which bind to the h-sgk.
16. The use of receptors as claimed in any of claims 11 or 12 for the qualitative or quantitative detection of the human cell volume-regulated kinase h-sgk.
17. The use as claimed in claim 16, which involves an immunochemical method.
18. A process for preparing polyclonal or monoclonal antibodies, which comprises using at least one of the peptides as claimed in claim 10 for immunizing experimental animals.
19. The use of the nucleic acid as claimed in one or more of claims 1 to 4 or of a fragment as claimed in one or more of claims 5 to 7 or of the human cell volume-regulated kinase h-sgk as claimed in claim 8 or 9 or of the peptides as claimed in claim 10 for detecting changes in cell volume.
20. A pharmaceutical comprising the nucleic acid as claimed in one or more of claims 1 to 4 or a frag-

1000003-120404

ment as claimed in one or more of claims 5 to 7 or the human cell volume-regulated kinase h-sgk as claimed in one or more of claims 8 and 9 or a peptide as claimed in claim 10 or receptors as claimed in one or more of claims 11 and 12.

5

10000039-120401